

REMARKS

Claims 1-15 are currently pending. In the Final Office Action of April 29, 2005, the Examiner rejected claims 1-15 under 35 U.S.C. §103(a) as being unpatentable over Weber (U.S. Patent No. 3,976,084).

Interview Summary

At Applicant's request, the Examiner granted a telephonic interview on June 16, 2005. At issue during the interview were proposed amendments to claims 1 and 10. Though no agreement with respect to the patentability of the amended claims was reached, Applicant appreciates the Examiner's willingness to discuss the proffered amendments.

Rejections under §103(a)

With respect to claim 1, Applicant has amended the claim to remove the previous amendment and present a new amendment herein. Specifically, claim 1 has been amended to, in part, call for "each of the blades [to] include[] a radially outermost tip portion which has a predetermined extent in the rotational direction that is **substantially flat.**" (Emphasis added). Claim 1 continues by calling for the predetermined extent to be "greater in size than an extent of other portions of the blade in the rotational direction" for the purpose of ensuring "that the threshing portion of the surface can abrade away by an amount just less than the predetermined extent while the radial extent of the blade remains substantially constant."

This claimed configuration and the advantages that flow therefrom are further explained in the Specification and shown in Fig. 7. Specifically, the Specification states that "tip portions 86 each preferably have a predetermined thickness or extent G in direction A which is greater compared to the extent of most other portions of blade 47 in direction A" and "[a]s a result, even as tip portion 86 wears or abrades away, as illustrated by dotted line 86' in Fig. 7, the radial extent E of blade 47 will remain substantially the same." ¶[0025]. To this end, Fig. 7 shows that the outermost tip

portions 86 have flat end portions that extend in direction A, as identified by thickness G. Accordingly, should a given blade begin to wear or abrade away, as illustrated by reference number 86', the radial extent E of the blade 47 will remain substantially constant and thereby sustain the desired threshing and propelling of tailings through the conveyer.

On the other hand, as clearly shown in Fig. 4 of Weber, the rasp bars 106 that form the ends of each vane are clearly not substantially flat, as called for in claim 1. Rather, as acknowledged by the Examiner, Weber is clear that the rasp bars 106 are rounded. See Final Office Action of April 29, 2005, pg. 3. However, the Examiner concluded that since flat rasp bars are known, such a modification would be obvious to one of ordinary skill. Applicant respectfully disagrees with this conclusion.

Though flat rasp bars may be known, the Examiner has not provided any teaching or suggestion to support the substitutions of flat rasp bars for the rounded rasp bars taught by Weber. Rather, the only motivation of record for such a substitution can be found in Applicant's own disclosure. See Application, ¶[0025]. Therefore, at best, the only motivation of record requires the rejection to rely upon impermissible hindsight. See MPEP §2145. In fact, the very teachings of Weber would lead one away from the claimed configuration.

By teaching that the blade tips should be rounded, Weber, in essence, teaches that the blade tips should be designed to include what is tantamount to "pre-wearing". In particular, by rounding the tips, Weber teaches that the blade tips should have a shape substantially similar to the worn blade illustrated in Fig. 7 of the present application. That is, Weber teaches that the blade tips should be constructed to include wear such as that illustrated by reference numeral 86' of Fig. 7. Accordingly, Weber cannot be said to teach or suggest the claimed configuration that protects against premature shortening of the blade. Rather, Weber teaches an impeller configuration that would promote premature wearing due to the "pre-worn" rounded tips.

For at least these reasons, claim 1 is patentably distinct from the art of record. Accordingly, claims 2-9 are in condition for allowance at least pursuant to the chain of

dependency.

Regarding claim 9, Applicant has amended the claim to remove subject matter that was, at least partially, redundant in light of the amendment to claim 1. Additionally, claim 9 has been amended to clarify the invention. Specifically, Applicant has amended claim 9 to remove the "at least" from the element of claim 9 calling for threshing portion of the surface of each blade to be "[~~at least~~]substantially flat."

Regarding claim 10, Applicant previously amended the claim to clarify that "the radially outermost tip portion and the tailings deflecting portion" are "of indivisible unitary construction." Responsive thereto, the Examiner acknowledged that Weber does not teach that which is called for in claim 10. Accordingly, to reject claim 10, the Examiner cited several age-old court cases setting forth the principle that merely joining two separate bodies into one does not, by itself, render the combination patentable. To support this rejection under the "separate-to-integral principle", the Examiner stated that "Applicant has provided no evidence that an integral construction is non-obvious" and concluded that "there is no impediment to their (outermost threshing portion and tailings deflecting portion) unitary construction." Final Office Action of April 29, 2005, pg. 4.

Contrary to the Examiner's position, Applicant does not carry the burden of providing "evidence that an integral construction is non-obvious." See MPEP §2142. Rather, the burden of establishing a *prima facie* case of obviousness rests with the Examiner. See Id. The Examiner has not provided any citation within the art of record to, or asserted that the knowledge of one of ordinary skill would, render the claimed "indivisible unitary construction" obvious. In fact, as will be shown, Weber not only does not teach or suggest that which is called for in claim 10 but actually teaches away from the claimed invention. Therefore, as will be addressed, the proffered rejection cannot be sustained.

Weber teaches that the vanes must include a flange portion that detachably couples (1) a rasp bar 106 and (2) washer like counter-balancing weights 110 by way of

bolts 108. That is, as specified in Figs. 4 and 5 and discussed in Column 3, Lines 30-41, Weber clearly states that the impeller includes:

a hub portion 98 from which a plurality of vanes 100 extend generally radially. The vanes 100 have a width substantially equal to the width of the housing within the walls 88 and merge with a central web 102. ***The outer ends of each of the vanes has a flange portion 104 which detachably supports a rasp bar 106.*** Each of the rasp bars 106 is ***connected to its associated flange 104 by means of bolts 108 which also are used to support selected numbers of washer like counter-balancing weights 110 by which the rotor may be accurately balanced.***

(Emphasis added).

Since Weber teaches that the vane/flange is detachably coupled to the rasp bar 106, Weber cannot be said to teach or suggest the claimed “indivisible unitary construction.” Additionally, Weber clearly states that this detachable construction is **necessary** to allow the rotor to be “accurately balanced” using the “washer like counter-balancing weights 110.” Therefore, Weber actually teaches away from the claimed configuration by stating an express purpose why a detachable construction is necessary and cannot be used to support an obviousness rejection in this manner. See MPEP §§2141.02 and 2145. Similarly, to modify Weber to include the claimed “indivisible unitary construction” of the “the radially outermost tip portion and the tailings deflecting portion” would render Weber unfit for the expressly stated purpose of allowing the rotor to be balanced using the “washer like counter-balancing weights 110.” As such, under MPEP §2143, Weber actually discloses an “impediment” to the claimed unitary construction that precludes the proffered basis of rejection.

For at least these reasons, claim 10 is patentably distinct from the art of record. Accordingly, claims 11-12 are in condition for allowance at least pursuant to the chain of dependency.

Regarding claim 13, Applicant has amended the claim to remove the previous amendment and clarify that “each of the plurality of impeller blades is formed as an indivisible unitary body.” Weber does not teach or suggest such an impeller blade and, in fact, (1) teaches away from that which is claimed and (2) cannot be modified to render the claimed invention obvious because such would be contrary to an expressly


stated purpose of Weber. That is, as previously stated with respect to claim 10, Weber requires that be vanes 100 include a flange portion that detachably couples (1) a rasp bar 106 and (2) washer like counter-balancing weights 110 by way of a bolt 108 for the express purpose of allowing the rotor to be "accurately balanced" using the "washer like counter-balancing weights 110." Accordingly, as previously addressed, Weber cannot be used to support a rejection under §102 or §103. See §§2141.02, 2145, 2143, and 2142.

For at least these reasons, claim 13 is patentably distinct from the art of record. Accordingly, claims 14-15 are in condition for allowance at least pursuant to the chain of dependency.

In summary, and in accordance with the foregoing amendments and Remarks, it is believed that pending Claims 1-15 are in condition for allowance. As such, Applicant request timely issuance of a Notice of Allowance. However, should the Examiner believe any issue to be unresolved, the Examiner is cordially invited to contact the undersigned at the telephone number appearing below in an effort to advance the prosecution of this application.

Respectfully submitted,
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